

# Virginia Regulatory Town Hall

## Proposed Regulation Agency Background Document

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| <b>Agency Name:</b>        | Virginia Department of Health               |
| <b>VAC Chapter Number:</b> | 12VAC5-581                                  |
| <b>Regulation Title:</b>   | Sewage Collection and Treatment Regulations |
| <b>Action Title:</b>       | Review of Regulatory Review Package         |
| <b>Date:</b>               | January 7, 2000                             |

This information is required pursuant to the Administrative Process Act (§ 9-6.14:9.1 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), and the *Virginia Register Form, Style and Procedure Manual*. Please refer to these sources for more information and other materials required to be submitted in the regulatory review package.

### Summary

*Please provide a brief summary of the proposed new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment or restate the purpose and intent of the regulation, instead give a summary of the regulatory action and alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation.*

The proposed SCAT Regulations provide standards for the design, construction, and operation of Sewage Collection Systems and Sewage Treatment Works. Upon adoption of these regulations, construction and operation permits will be issued to applicants by the State Health Commissioner upon completion of technical evaluations of submitted engineering documents by the Division of Wastewater Engineering staff of the Office of Environmental Health Services. The issuance of such permits will be required upon the filing of a complete permit application with the Department of Environmental Quality, Water Division.

The existing 1977 Sewerage Regulations promulgated jointly by the State Water Control Board and the State Board of Health will remain in effect until superseded by the proposed SCAT Regulations adopted by either board as appropriate (Chapter 194 of the 1991 Acts of the General Assembly). Implementation of the proposed SCAT Regulations will provide owners, operators, consultants, contractors, and equipment suppliers with updated, uniform standards for installation of sewage collection, treatment, reuse and disposal of sewage for large and small communities.



## Basis

*Please identify the state and/or federal source of legal authority to promulgate the regulation. The discussion of this statutory authority should: 1) describe its scope and the extent to which it is mandatory or discretionary; and 2) include a brief statement relating the content of the statutory authority to the specific regulation. In addition, where applicable please describe the extent to which proposed changes exceed federal minimum requirements. Full citations of legal authority and web site addresses, if available, for locating the text of the cited authority must be provided. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the proposed regulation and that it comports with applicable state and/or federal law.*

Section 32.1-164 of the Code of Virginia authorizes the State Board of Health to promulgate regulations to govern the Safe and Sanitary Collection, Transportation, Treatment, and Disposal of Sewage for all sewerage systems. Sections 62.1-44.18 et. sq. of the Code of Virginia describes the interrelationship of the State Water Control Board and the Virginia Department of Health for regulation of sewage discharges. These regulations are based on Section 62.1-44.19 and Section 32.1-164 of the Code of Virginia.

§62.1-44.18 of the *Code* of Virginia specifies that all sewerage systems and sewage treatment works shall be under the general supervision of the VDH and the State Water Control Board/Department of Environmental Quality (DEQ).

§62.1-44.19 of Chapter 3.1, Title 62.1 *Code* of Virginia specifies that before any owner may erect, construct, open, expand or operate a sewerage system or sewage treatment works which will have a potential discharge or actual discharge to state waters, such owner shall file with the State Water Control Board/DEQ an application for a certificate. Before issuing the certificate, the State Water Control Board consults with and gives consideration to the written recommendations of the VDH pertaining to the protection of public health.

Upon completion of public notice, the State Water Control Board/DEQ determines whether the application is complete. After the certificate has been issued by the State Water Control Board/DEQ, the owner must acquire from the VDH (i) authorization to construct the systems or works for which the Board has issued a discharge certificate and (ii) upon completion of construction, authorization to operate the sewerage system or sewage treatment works. These authorizations are to be obtained in accordance with regulations promulgated by the State Board of Health under §32.1-164. The VDH will then notify the State Water Control Board/DEQ when such authorizations are granted. Such authorization will be in the form of construction and operation permits issued by the State Health Commissioner, in accordance with the provisions of the SCAT *Regulations*.

Certain federal( PL87-128,7 USC1989, 7 CFR Part 1942,Subpart A) and private loan institutions require a State certification of the adequacy of designs for sewage collection and treatment systems

prior to any commitment to provide funds for construction of such projects. These loans have previously amounted to nearly 100 million dollars annually.

The Office of the Attorney General notified the State Health Commissioner on November 9, 1999, that adoption of the proposed revised SCAT Regulations by the State Board of Health would be within the scope of authority granted by the General Assembly. The necessary documentation will be forwarded to the State Registrar to initiate the public hearing process in accordance with the Administrative Process Act and the Virginia Department of Health Public Participation Guidelines.

## Purpose

*Please provide a statement explaining the need for the new or amended regulation. This statement must include the rationale or justification of the proposed regulatory action and detail the specific reasons it is essential to protect the health, safety or welfare of citizens. A statement of a general nature is not acceptable, particular rationales must be explicitly discussed. Please include a discussion of the goals of the proposal and the problems the proposal is intended to solve.*

The proposed Sewage Collection and Treatment (SCAT) Regulations will replace the existing Sewerage Regulations jointly adopted by the State Water Control Board and the State Board of Health in 1977.

The 1977 Joint Regulations established the accepted standards for design of sewage collection systems and sewage treatment works as necessary to protect public health and prevent violations of water quality standards from improperly treated sewage discharges. The existing Sewerage Regulations were also developed in response to the creation of the Federal Construction Grants program administered by the U.S. Environmental Protection Agency. The Construction Grants program has now been replaced by a revolving loan program involving more incentive to begin construction as expeditiously as possible. The proposed SCAT Regulations are necessary in order to establish the procedures and standards that will streamline the current regulatory process for evaluating and approving the construction of sewage collection and treatment systems.

The goal of the proposed SCAT Regulations is to provide for a number of important services that will benefit the public, the private business sector and local governments, especially small communities, including:

1. Assure financial institutions that fiscal responsibility will be provided by the proposed system design so that revolving loans will be available for final design and construction.
2. Provide the means to evaluate new or non-conventional equipment in order that equipment manufacturers will be able to compete fairly and responsibly to provide the most economical technology.

3. Provide technical assistance and liability protection to consultants so that owners with limited resources can procure reasonably priced professional design services.
4. Provide assurance that constructed systems can be operated in compliance with permit requirements so that owners will not have to bear legal and other costs of permit enforcement actions.

The proposed SCAT Regulations will revise outdated technical design standards contained in the existing regulations and provide for more efficient issuance of construction and operation permits by the State Health Commissioner in order to streamline the current permit process.

## Substance

*Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement providing detail of the regulatory action's changes.*

The proposed Sewage Collection and Treatment Regulations (SCAT) Regulations were developed as a result of project streamline initiated by the Secretary of Natural Resources in 1990 to restructure the joint Sewerage Regulations and realign the responsibilities of VDH and SWCB.

During the study, the role of the Virginia Department of Health in the regulation of sewerage systems was evaluated. The project streamline study concluded that an efficient and impartial regulatory oversight of the construction and operation of sewerage systems was necessary and could be provided by the Virginia Department of Health (VDH). It was subsequently recommended that Sections 62.1-44.18 and 62.1-44.19 of the State Water Control law be modified. Accordingly, a House Bill 1449 was introduced in the General Assembly to make the necessary legislative changes. This bill was passed by both houses and became effective July 1, 1991. These modifications to the State Code authorize VDH to issue Certificates to Construct (CTC) and Certificates to Operate (CTO) sewerage systems and treatment works.

Sewerage systems and sewage treatment works are complex public works facilities incorporating microbiological, chemical and physical processes to collect and treat sewage. Operation of such systems in compliance with permit requirements is difficult at best. The proposed Sewage Collection and Treatment (SCAT) Regulations, provide an update and refinement of the Sewerage Regulations, developed over the past twelve (12) years with input from numerous committee meetings, involving the regulated community and from the public as a result of many public informational meetings. The SCAT Regulations provide the consulting engineering community with minimum design standards, developed from years of experience and will ensure adequate performance of sewerage systems and sewerage

treatment works in order to prevent both the transmission of waterborne disease and the degradation of water quality. The regulations provide a uniform statewide basis for evaluation of the proposed designs and new treatment technology to properly construct and operate sewage collection and treatment facilities.

## Issues

*Please provide a statement identifying the issues associated with the proposed regulatory action. The term "issues" means: 1) the primary advantages and disadvantages to the public of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.*

Prior to the Project Streamline Initiative HB1449 (1991), Section 62.1-44.19 of the State Water Control Law required that the State Health Department conduct a technical review of proposals for sewage collection, treatment, and disposal of sewage for sewerage systems, and file a report with the State Water Control Board. This letter report would contain the State Health Department's recommendations for approval or disapproval of the proposal, as authorized under Section 32.1-164 of the State Health Code. Upon adoption of the SCAT Regulations, owners of sewerage facilities or associated permit applicants will be directed to obtain construction and operational permits from VDH prior to final issuance of either a Virginia Pollutant Discharge Elimination System (VPDES) permit, or a Virginia Pollution Abatement (VPA) permit by DEQ. After the adoption of SCAT Regulations the formal letter report procedure will be replaced by a simple notification that construction or operational permits have been issued by VDH. This streamlined procedure will reduce the existing time periods required to notify owners and applicants to proceed with construction. The owners will receive a notification letter including a new standard permit form authorizing construction or operation.

The proposed SCAT Regulations will outline current standards of practice and the technical design standards and operational requirements to ensure that all construction of new or upgraded processes will provide the capacity and/or performance reliability necessary to comply with permit requirements. Permit noncompliance can result in both, costly enforcement actions and the improper and unregulated disposal of sewage which would result in pollution of surface and groundwater, contamination of soil and exposure of the public to infectious agents. The proposed SCAT Regulations administered through the VDH, Division of Wastewater Engineering (DWE) will not only facilitate a more expeditious evaluation and approval of plans and specifications for the construction of new, or expanded sewerage systems and treatment works, but will also ensure that public health is not endangered and that environmental resources are properly managed.

Implementation of the proposed SCAT Regulations will provide for some consolidation of agency resources now utilized to ensure the safe and reliable collection, treatment and disposal of sewage, thus eliminating previous anticipated needs for additional staff resources. A relatively small disadvantage

involves the need to revise the current interagency relationships for issuance of construction and operation permits and to inform the owners of sewage collection and treatment systems of those changes.

## Fiscal Impact

*Please identify the anticipated fiscal impacts and at a minimum include: (a) the projected cost to the state to implement and enforce the proposed regulation, including (i) fund source / fund detail, (ii) budget activity with a cross-reference to program and subprogram, and (iii) a delineation of one-time versus on-going expenditures; (b) the projected cost of the regulation on localities; (c) a description of the individuals, businesses or other entities that are likely to be affected by the regulation; and (d) the agency's best estimate of the number of such entities that will be affected.*

The proposed SCAT Regulations will require technical evaluation and approval of proposals, reports, plans, and specifications submitted as applications in support of permits to construct and operate sewage collection and treatment facilities. However, the VDH program will ensure that technical assistance is provided to owners and their consultants to develop the most cost effective technology that can be reasonably operated to provide reliable performance in compliance with permit requirements. The VDH staff will negotiate an acceptable design in accordance with the SCAT Regulations.

During this process, small communities will receive the benefits of the statewide technical expertise provided by the VDH staff. In addition, equipment manufacturers will be provided with a uniformly regulated process on which to base competitive bids for construction contracts. Currently an average of over 1,000 sewage collection, and treatment projects, representing nearly 250 million dollars in construction costs, are submitted to VDH annually for a technical evaluation. The overwhelming majority of such submissions originate from local governments through their private consulting engineer who presents the proposed design at a preliminary engineering conference with the DWE staff.

Some errors or omissions are identified on all submitted technical documents. Correction of misleading information used for contractor bids results in eliminating potential problems prior to initiating construction of the sewerage system or treatment works, and thus saves substantial amount of dollars, by the local governments that own and operate several thousand sewage collection and treatment systems, transporting and processing hundreds of million gallons of raw sewage each day.

Implementation of the proposed SCAT Regulations will continue to provide many benefits to small communities and there should be no negative financial impact on the owners of sewage collection, and treatment systems, including most local governments throughout the state. Consultants and owners will also benefit from the implementation of more efficient procedures for issuance of construction and operation permits as provided by the proposed regulations, especially for decentralized small flow systems utilizing land area for natural treatment and disposal.

The proposed SCAT Regulations will be implemented by environmental engineering staff within the DWE. The FY 1998 appropriation for the sewage and wastewater regulation program originally established 900,000 dollars to support 14 full time equivalent positions established as necessary to provide the State oversight for sewage collection, treatment, and residuals management under the Sewerage Regulations. That regulatory field staff would annually provide project evaluation and technical assistance services for over a thousand sewage collection, and treatment projects involving construction, or operation. It is now proposed that the uniform statewide standards established by the proposed SCAT Regulations be implemented by a reduced staff of 6 field engineers which has been included in the VDH current budget appropriation.

### Detail of Changes

*Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description of changes implemented by the proposed regulatory action. Where applicable, include citations to the specific sections of an existing regulation being amended and explain the effect of the proposed changes.*

The existing 1977 Sewerage Regulations promulgated jointly by the State Water Control Board and the State Board of Health will remain in effect until superseded by the proposed SCAT Regulations adopted by either board as appropriate (Chapter 194 of the 1991 Acts of the General Assembly). Implementation of the proposed SCAT Regulations by the Virginia Department of Health (VDH) will provide owners, operators, consultants, contractors, and equipment suppliers with updated, uniform standards for design and installation of sewage collection, treatment, reuse and disposal of sewage for large and small communities.

The proposed SCAT Regulations update compliance and enforcement issues in accordance with the Administrative Process Act (APA) in sections 12 VAC 5-581-30 through 12 VAC 5-581-100. The proposed SCAT Regulations establish new permit requirements in section 12 VAC 5-581-110 and provide for waivers of formal permits for small sewage collection and treatment systems. The proposed permit issuance procedures (12 VAC 5-581-130) are much more flexible than the procedures specified in the current Sewerage Regulations (12 VAC 5-580-50 through 12 VAC 5-580-60).

A General Permit will be available through the proposed regulations (12 VAC 5-581-280) for local approval of projects involving the expansion of sewage collection systems.

A major difference between the proposed SCAT Regulations and the current Sewerage Regulations involves construction project evaluation procedures and construction permits. The proposed SCAT Regulations will allow issuance of a construction permit without a formal technical evaluation of design documents (plans and specifications), based upon the submittal of a signed statement by the responsible design consultant that the design will meet the minimum required standards.

The proposed SCAT Regulations define Sludge Management Plans(12 VAC 5-581-200) and provide a link to the Biosolids Use Regulations(12 VAC 5-585) which have replaced several sections of the current Sewerage Regulations(12 VAC 5-580-720, 12 VAC 5-580-1170 and 1180).

The proposed SCAT Regulations update the procedures to be used to evaluate and approve new untried(non-conventional) treatment processes(12 VAC 5-581-260). The proposed procedures address previous deficiencies in the current Sewerage Regulations(12 VAC 5-580-110) including specific information on assurance resources for performance guarantees and schedules for performance reliability testing.

The proposed SCAT Regulations address a regulatory deficiency through procedures for issuance of permits for large-scale(5,000 gpd or more) sub-surface sewage disposal systems that are not provided for in the Sewage Handling and Disposal Regulations(12 VAC 5-610). In addition, the proposed regulations describe the jurisdictional relationships for approving building sewer service(12 VAC 5-581-1060).

The proposed SCAT Regulations provide for a more representative Regulation Advisory Committee(12 VAC 5-581-310) than that specified in the current Sewerage Regulations(12 VAC 5-580-170).

The proposed SCAT Regulations include updated testing and monitoring requirements(12 VAC 5-581-320 through 12 VAC 5-581-340) in comparison to the outdated requirements in the current Sewerage Regulations(12 VAC 5-580-210 through 12 VAC 5-580-260). In addition, the proposed SCAT Regulations outline recommendations for operation of treatment works(12 VAC 5-581-350) that were not included in the Sewerage Regulations.

The proposed SCAT Regulations include current design standards for disinfection of treated sewage discharges including alternatives to chlorination(12 VAC 5-581-800 through 12 VAC 5-581-860) that are not included in the current Sewerage Regulations(12 VAC 5-580-820 through 12 VAC 5-580-820).

The proposed SCAT Regulations update the procedures and technical design standards for land treatment systems and other natural treatment processes(12 VAC 5-581-930 through 12 VAC 5-581-950). The proposed procedures will allow a more effective and earlier determination of site suitability(12 VAC 5-581-940) than provided for in the Sewerage Regulations(12 VAC 5-580-1000). The proposed SCAT Regulations also provide design standards for constructed wetlands(12 VAC 5-581-950) for natural treatment of sewage discharges.

The proposed SCAT Regulations consolidate and update the advanced wastewater treatment(AWT) design standards(12 VAC 5-581-890 through 12 VAC 5-581-920) as well as, providing new design standards for the control of nutrients in sewage discharges(12 VAC 5-581-960 through 12 VAC 5-581-990).

## Alternatives

*Please describe the specific alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action.*

In light of the clear, specific and mandatory authority of the State Board of Health to promulgate the proposed regulations, the Board has not considered any alternatives to the proposed regulations. The Board has, however, carefully drafted the proposed regulations to ensure that they embody the most appropriate, least burdensome and least intrusive framework for effectively regulating the design and operation of sewage collection systems and sewage treatment works, as is possible.

## Public Comment

*Please summarize all public comment received during the NOIRA comment period and provide the agency response.*

The Notice of Intended Regulatory Action, regarding the proposed regulations was published in the Virginia Register on June 29, 1997, inviting the public to comment before July 10, 1997. No comments were received during this period.

## Clarity of the Regulation

*Please provide a statement indicating that the agency, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.*

In drafting the proposed Regulations, the Board strove to write provisions that are clear and easily understandable by the individuals and entities affected. The Board has determined that the regulations are clearly written and will be easily understood.

## Periodic Review

*Please supply a schedule setting forth when the agency will initiate a review and re-evaluation to determine if the regulation should be continued, amended, or terminated. The specific and measurable regulatory goals should be outlined with this schedule. The review shall take place no later than three years after the proposed regulation is expected to be effective.*

In accordance with law and executive order, the State Board of Health will review and reevaluate the proposed *Regulations* within three years of their becoming effective in order to determine whether they should be continued, amended or terminated. The resulting evaluation will be conducted in accordance with executive order and posted on the Virginia Regulatory Town Hall.

The measurable goals the proposed *Regulations* are intended to achieve include:

- (i) Whether the proposed *Regulations* effectively regulate sewage collection system and treatment works design and operation, as gauged by the comments received by the regulated community and discussions of the program during semi-annual meetings of the established *Regulations* Advisory Committee and;
- (ii) Whether new and innovative technology can be effectively utilized, as gauged by the number and nature of comments and inquiries received by the regulated community.

The SCAT Regulations also provide for a regulations advisory committee consisting of appropriate representatives of the concerned professional community, owners and operators of sewerage facilities, public interests and academic experts as appointed by the State Health Commissioner. The advisory committee will meet semiannually or more frequently, if necessary, to consider and evaluate recommendations for the implementation of or revision to, the SCAT Regulations and related policies concerning Sewage Collection, Treatment, and Disposal of Sewage for sewerage systems.